

REMARKS

Claims in the case are 1-11. Claims 1-11 have been amended herein. No claims have been added, and no claims have been cancelled herein.

The claims have been amended as to form, e.g., by inserting indefinite and definite articles where appropriate, including indentation, replacing "according to" with --of--, and replacing "characterized in that" with --wherein--. Additional amendments to the claims will be discussed further herein.

Claims 1-11 stand rejected under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed with regard to the amendments herein and the following remarks.

Claims 1 and 8 have each been amended herein to remove recitations as to "after if appropriate." For purposes of improved clarity, original step (e) of Claims 1 and 8 has been split into present steps (e), (f) and (g). Claim 1 has been amended such that one of the first two words of each process step is a gerund. Step (d) of Claims 1 and 8 has been amended to include antecedent basis for the recitation of "the irreversibly crosslinked cellulose derivative" as originally recited in step (e), and now present steps (f) and (g).

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to particularly point out and distinctly claim the subject matter which they regard as their invention. Reconsideration and withdrawal of the present rejection is respectfully requested.

Claims 1-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by EP 1 180 526 A1. This rejection is respectfully traversed with regard to the following remarks.

The English language equivalent of EP 1 180 526 A1 is United States Application Publication No. US 2002/0038018 A1 (collectively, Dannhorn et al). References herein will be made to the US 2002/0038018 A1.

Dannhorn et al disclose a process of preparing alkylhydroxyalkyl cellulose (e.g., methylhydroxypropyl cellulose – MHPC) that involves the steps of: (a) alkylating cellulose with an aqueous caustic solution containing 1.5 to 5.5 equivalents of alkali metal hydroxide (e.g., NaOH), in the presence of an alkyl halide (e.g., methyl chloride); (b) reacting the alkylated cellulose of step (a) with an alkylene oxide (e.g., propylene oxide); (c) adding alkyl halide to the product of step (b), in a

specific amount; and (d) isolating the alkylhydroxyalkyl cellulose from the reaction mixture of step (c). See the abstract, and page 2 paragraphs [0014] through [0019] of Dannhorn et al.

Dannhorn et al does not disclose, teach or suggest an irreversibly crosslinked cellulose derivative, or a method of preparing an irreversibly crosslinked cellulose derivative. The method of Dannhorn et al does not result in the formation of an irreversibly crosslinked cellulose derivative.

The cellulose derivative of Applicants' claims is an irreversibly crosslinked cellulose derivative. The irreversibly crosslinked cellulose derivative of Applicants' claims is prepared by a method that involves the step of: reacting an alkalized and hydroxyalkylated cellulose with a crosslinking agent in an amount of 0.0001 to 0.05 eq of crosslinking agent per cellulose anhydroglucose unit (AGU).

In light of the preceding remarks, Applicants' claims are deemed to be unanticipated by and patentable over Dannhorn et al. Reconsideration and withdrawal of the present rejection is respectfully requested.

Claims 8-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Dannhorn et al in view of United States Patent No 6,251,479 B1 (Groitzsch et al). This rejection is respectfully traversed in light of the following remarks.

Groitzsch et al disclose bodies containing superabsorber polymers, in which the superabsorber polymers are bonded together with polymer fibers. At least part of the superabsorber polymers are present as microporous open-celled foams. See the abstract, and column 3, lines 20-33 of Groitzsch et al.

Superabsorber polymers in the form of microporous open-celled foams is disclosed by Groitzsch et al as being a critical and essential aspect of their bodies. See column 3, lines 29-33 of Groitzsch et al. The fibers of Groitzsch et al's bodies include, for example, polyethylene fibers, polypropylene fibers and polyethylene terephthalate fibers (column 5, lines 55-59).

The process of Groitzsch et al involves: impregnating polymer fibers with a solution of superabsorber polymer and solvent; performing a phase separation step to form a polymer-enriched phase containing fibers; and crosslinking the superabsorber polymer in the polymer-enriched phase containing fibers, thereby forming an open-celled foam on the fibers. See column 5, line 60 through column 6, line 6 of Groitzsch et al.

Dannhorn et al has been discussed previously herein and discloses a method of preparing alkylhydroxyalkyl cellulose that involves the steps of: (a) alkylating cellulose with an aqueous caustic solution containing 1.5 to 5.5 equivalents of alkali metal hydroxide (e.g., NaOH), in the presence of an alkyl halide (e.g., methyl chloride); (b) reacting the alkalized cellulose of step (a) with an alkylene oxide (e.g., propylene oxide); (c) adding alkyl halide to the product of step (b), in a specific amount; and (d) isolating the alkylhydroxyalkyl cellulose from the reaction mixture of step (c). See the abstract, and page 2 paragraphs [0014] through [0019] of Dannhorn et al.

Dannhorn et al do not disclose, teach or suggest a process of forming microporous open-celled foams. In addition Dannhorn et al do not disclose, teach or suggest a process that involves forming a microporous open-celled foam on fibers.

As discussed previously herein, the process of Groitzsch et al includes as a necessary and critical step the formation of a microporous open-celled foam on fibers. Groitzsch et al do not disclose or teach crosslinking superabsorber polymers without forming a microporous open-celled foam, and do not disclose or teach forming a microporous open-celled foam in the absence of fibers upon which the foam is formed.

As such neither Dannhorn et al nor Groitzsch et al provide the requisite disclosure that would motivate a skilled artisan to combine or otherwise modify their respective disclosures.

As the Court of Appeals for the Federal Circuit has stated, there are three possible sources for motivation to combine references in a manner that would render claims obvious. These are (1) the nature of the problem to be solved, (2) the teaching of the prior art, and (3) the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The nature of the problem to be solved and the knowledge of persons of ordinary skill in the art are not present here and have not been relied upon in the rejection. As for the teaching of the prior art, the above discussion has established that neither of the patents relied upon in the rejection provide the requisite teaching, and certainly do not provide the motivation or suggestion to combine that is required by Court decisions.

The present rejection appears to impermissibly use Applicants' application as a blueprint for selecting and combining or modifying the cited references to arrive at

Applicants' claimed process, thereby making use of prohibited hindsight in the selection and application of the cited references. The use of hindsight reconstruction of an invention is an inappropriate process by which to determine patentability, *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988).


Even if Dannhorn et al and Groitzsch et al were combined, Applicants' presently claimed process would not result from such combination. Dannhorn et al and Groitzsch et al, either alone or in combination, do not disclose, teach or suggest a method of preparing an irreversibly crosslinked cellulose derivative that involves the step of: reacting an alkalized and hydroxyalkylated cellulose with a crosslinking agent in an amount of 0.0001 to 0.05 eq of crosslinking agent per cellulose anhydroglucose unit (AGU).

Dannhorn et al disclose adding alkyl halide in an amount of at least 0.2 equivalents per AGU (abstract; and page 2, paragraph [0017]). Groitzsch et al provide no disclosure or suggestion as to the equivalents of crosslinking agent per AGU that they use to crosslink the superabsorber polymer and form an open-celled foam on the fibers. Dannhorn et al and Groitzsch et al, either alone or in combination, do not disclose, teach or suggest reacting an alkalized and hydroxyalkylated cellulose with a crosslinking agent in an amount of 0.0001 to 0.05 eq of crosslinking agent per cellulose anhydroglucose unit (AGU), to form an irreversibly crosslinked cellulose derivative.

In light of the preceding remarks, Applicants' claims are deemed to be unobvious and patentable over Dannhorn et al in view of Groitzsch et al. Reconsideration and withdrawal of the present rejection is respectfully requested.

In light of the amendments herein and the preceding remarks, Applicants' presently pending claims are deemed to meet all the requirements of 35 U.S.C. §112, and to define an invention that is unanticipated, unobvious and hence, patentable. Reconsideration of the rejections and allowance of all of the presently pending claims is respectfully requested.

Respectfully submitted,

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